PETROBRAS	**DATA SHEET**	No. I-FD-3A17.01-1231-392-1J5-001	
	CLIENT: *BS/ATP-IMI/OP-PMXL*		SHEET: 1 of 12
	JOB: *PROJETO COMPLEMENTAR PMXL-1*		
	AREA: *1231 - PRIMARY PROCESSING UNIT*		
	TITLE: **OIL SYSTEM FOR TURBOCOMPRESSOR – UC-1231002**		BS/PCM/PROJDP
			INTERNAL

INDEX OF REVISIONS

REV.	DESCRIPTION AND/OR REVISED SHEETS
0	**ORIGINAL ISSUE**
A	**REVISED WHERE INDICATED AFTER APR, HAZOP AND GRS**

	REV. 0	REV. A	REV. B	REV. C	REV. D	REV. E	REV. F	REV. G	REV. H
DATE	10/31/2025	01/12/2026							
EXECUTION	Note 5	Note 5							
CHECK	U32A	CTFQ							
APPROVAL	BEGS	BEGS							

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FORM OWNED TO PETROBRAS N-0381 REV.M.

PETROBRAS	DATA SHEET	No. I-FD-3A17.01-1231-392-1J5-001	REV. A
	BS/ATP-IMI/OP-PMXL	SHEET: 2 of 12	
	TITLE: OIL SYSTEM FOR TURBOCOMPRESSOR – UC-1231002	BS/PCM/PROJDP	
		INTERNAL	

APPLICABLE TO: ☒ PROPOSAL ☐ PURCHASE ☐ AS BUILT

FOR:	**E&P**	UNIT:	**Top deck – M04**
SITE:	**BS/ATP-IMI/OP-PMXL**	SERVICE:	**COMPRESSOR PACKAGE OIL SYSTEM**
No. REQ / TAG:	**SEE I-ET-3A17.01-1231-321-1J5-001**	MANUFACTURER:	
MODEL:		VENDOR:	
SIZE / TYPE:		MAIN EQUIPMENT:	**CENTRIFUGAL COMPRESSOR / GAS TURBINE**
SERIAL No.		MANUFACTURER No.:	

OVERALL SYSTEM TYPICAL SCHEMATICS	FIGURE No.	OPTION	COMMENT
☐ COMBINED LUBE, SEAL, AND CONTROL SYSTEM			
☐ SEPARATE SEAL-OIL SYSTEM			
☐ SEAL MODULE AT EQUIPMENT			
☒ LUBE / CONTROL SYSTEM			
☐ BASIC OIL SUPPLY MODULE			
☒ LUBE MODULE AT EQUIPMENT			

☒ DRAWING REQUIREMENTS ☒ COMPONENT REVIEW

☒ RELIEF VALVES TO PROTECT LOW PRESSURE SYSTEMS ☐ NO ☒ YES FOR:

OIL REQUIREMENTS

SUPPLY ARRANGEMENT	CNTRL OIL	LUBE OIL	SEAL OIL	COMBINED
☐ SEPARATE CONSOLE	☐	☐	☐	☐
☐ MULTIPLE PACKAGE	☐	☐	☐	☐
☒ PACKAGE No.1	☐	☒	☐	☐
☐ PACKAGE No.2	☐	☐	☐	☐
☐ PACKAGE No.3	☐	☐	☐	☐

BASEPLATES
☒ POINT SUPPORT **(AVM)**
☐ GROUT HOLE / VENT HOLES
☐ EPOXY GROUT / PRECOAT

BASIC SYSTEM DETAILS

☐ EQUIPMENT BLOCK-IN TIME ____ MINUTES
☐ EQUIPMENT COAST-DOWN TIME ____ MINUTES
EQUIPMENT COOL-OFF TIME
☐ DRIVER ____ MINUTES
☐ ____ ____ MINUTES
☐ MINIMUM START UP OIL TEMP. ____ ºC
OTHER
☐ SETTLING OUT PRESSURES ____ kPa g

☐ PROCESS RELIEF VALVE SETTING ____ kPa g
☐ SHOP TEST CONDITIONS
☐ FIELD START UP / RUN-IN CONDITIONS
☐ OTHER SPECIAL CONDITIONS
☐ WELDING AND SPECIAL FABRICATION REQUIREMENTS
☐ 100% RADIOGRAPHY
☐ MAGNETIC PARTICLE
☐ LIQUID PENETRANT

COMPONENTS

PIPING AND TUBING

☐ MATERIAL ____
☐ DOUBLE BLOCKS AND BLEEDS
☐ TIGHT SHUTOFF
☐ TUBING FITTINGS MFR ____ MODEL ____
☐ CARBON STEEL SLIP-ON FLANGES ☒ WELDNECK FLANGES
☐ THROUGH STUDS REQUIRED
☐ HEAT TRACING REQUIRED BY ☐ PURCH. ☐ VENDOR

☐ SPECIAL REQUIREMENTS ____
☐ UTILITIES MANIFOLDED TO COMMON CONNECTIONS
☐ AIR
☐ COOLING WATER
☐ OTHER
☐ INSTRUMENT TEST VALVES REQUIRED
☐ VALVE HEADS VENTED TO RESERVOIR

OIL CONDITIONERS

☐ PURCHASER'S ITEM No. ____
☐ SERVICE USED IN ____
☐ TYPE ____
☐ PORTABLE ☐ MOUNTED ON
☐ RATED FLOW OF OIL, m^3/h ____
☐ MANUFACTURER ____
☐ MODEL ____
☐ DRIVER FOR ____
☐ kW AND ENCLOSURE ____
☐ VOLTS/PH/HZ ____
☐ TYPE ____
☐ WATER REMOVAL RATE ____
☐ MATERIAL OF CONSTRUCTION ____

DEGASSING DRUM

☐ PURCHASER'S ITEM No. ____
☐ TYPE PER ____
OPERATING TEMP. ____ ºC
m^3/h NORMAL/MAX. ____ / ____
NORMAL RETENTION ____ MINUTES
NORM/MAX. CAPACITY ____ / ____
☐ PURGE GAS TYPE ____
☐ Nm^3/h REQUIRED ____
☐ TYPE HEATING DEVICE ____
☐ CORROSION ALLOWANCE ____
☐ DESIGN/TEST, kPa g ____ / ____
☐ OTHER ____
☐ OTHER ____

☐ SERVICE USED IN ____
☐ FLOW CONTROL
☐ THERMOSTAT CONTROL
☐ MATERIAL
☐ INTERIOR COATING ____
☐ OVERSIZED VENT ____
☐ VENT RELIEF DEVICE ____
☐ OMIT BREATHER ____
☐ CODE CONSTRUCTION ____
☐ CODE STAMP ____
☐ OTHER ____
☐ OTHER ____
☐ OTHER ____

RESERVOIR				
SERVICE APPLICATION	☒ SEPARATE LUBE	☒ COMBINED	☐ SEPARATE SEAL	
☐ PURCHASER'S ITEM No.				
☒ FIGURES No. / OPTIONS				
☒ HEATER	☐ STEAM ☒ ELECTRIC	☐ STEAM ☒ ELECTRIC	☐ STEAM ☐ ELECTRIC	
☒ HEATER IN SEALED TUBE	☒	☒	☐	
☐ MATERIAL				
☐ NORMAL FLOW, m^3/h				
☐ FREE SURFACE, m^3				
☐ WORKING CAPACITY, min/l				
☐ RETENTION CAPACITY, min/l				
☐ RUNDOWN CAPACITY, m^3				
☐ NORMAL OPERATING RANGE				
☐ CHARGE CAPACITY, m^3				
☒ FLAME ARRESTOR	☒	☒	☐	
☒ OIL MIST SEPARATOR	☒	☒	☐	
☐ HANDRAILS ON TOP	☐	☐	☐	
☐ NON-SKID DECKING	☐	☐	☐	
☐ FLANGED VENT	☐	☐	☐	
☐ OVERSIZED FLANGED VENT	☐	☐	☐	
☐ PRESSURE RELIEF DEVICE TYPE				
☐ SIPHON BREAKER	☐	☐	☐	
☐ TOP MOUNTED COMPONENTS PERMITTED	☐	☐	☐	
☐ TOP MOUNTED COMPONENTS ARE:				
☐ SUBMERGED COMPONENTS / MATERIALS				
☐ DIMENSIONS OF TANK, m : L x W x H	/ /	/ /	/ /	
COOLERS [a]				
SERVICE APPLICATION	☒ SEPARATE LUBE	☒ COMBINED	☐ SEPARATE SEAL	
☐ PURCHASER ITEM No.				
☒ TWIN UNITS (2 X 100%)	☒	☒	☐	
☒ FIGURES No. / OPTIONS				
☐ WATER SIDE FOR STEAM HEATING	☐	☐	☐	
☐ DETAILS ON DATA SHEET				
☐ WATER SIDE CORROSION ALLOWANCE				
☐ MANUFACTURER				
☒ TYPE / MODEL	**AIR COOLER /**	**AIR COOLER /**		
☐ TEMA CLASS				
☐ FOULING FACTOR WATER / OIL SIDE	/	/	/	
☐ DUTY, kW/h				
☐ TUBE: L / OD / BWG	/ /	/ /	/ /	
☐ DESIGN / TEST SHELL SIDE, kPa g				
☐ DESIGN / TEST TUBE SIDE, kPa g				
☒ CODE CONSTRUCTION / STAMP	☒ / ☒	☒ / ☒	☐ / ☐	
☐ TUBE WATER VELOCITY, m/s	/	/	/	
☐ TUBE WATER CAPACITY, m^3/h				
☐ MATERIAL: PLATES				
SHELL				
CHANNELS AND COVERS				
TUBE SHEETS AND TUBES				
☐ REMOVABLE TUBE BUNDLE	☐	☐	☐	
☐ U-BEND TUBES PERMITTED	☐	☐	☐	
☒ OIL TEMPERATURE CONTROL VALVE	☒ THREE WAY CNTRL	☒ THREE WAY CNTRL	☐	

REMARKS:

[a] For more details, see I-ET-3A17.01-1231-327-1J5-001.

PETROBRAS	DATA SHEET	No. I-FD-3A17.01-1231-392-1J5-001	REV. A
	BS/ATP-IMI/OP-PMXL		SHEET: 4 of 12
	TITLE: OIL SYSTEM FOR TURBOCOMPRESSOR – UC-1231002		BS/PCM/PROJDP
			INTERNAL

FILTERS

SERVICE APPLICATION:	☒ LUBE OIL, ☐ SEAL OIL & ☐ CONTROL OIL	☒ SEPARATE CONTROL OIL	☐ SEPARATE SEAL OIL	☐ BOOSTER PUMP DISCHARGE OIL	☐ SEPARATE COUPLING OIL
☐ PURCHASE ITEM No.					
☐ MANUFACTURER / MODEL					
☒ TWIN (2 X 100%)	☒	☒	☐	☐	☐
☐ SECOND FILTER FOR CTR OIL	☐	☐	☐	☐	☐
☒ FIGURES No. / OPTIONS					
☐ FILTRATION LEVEL					
☐ DESIGN / TEST, kPa g	/	/	/	/	/
☐ CODE CONST / STAMP	☐ / ☐	☐ / ☐	☐ / ☐	☐ / ☐	☐ / ☐
☐ MATERIAL: CASE AND TOP					
CARTRIDGES:					

FURNISH _____ EXTRA SETS OF CARTRIDGES. ☐ PER SERVICE ☐ PER FILTER (EXTRA OVER OTHER SPARES).

CONTINUOUS FLOW TRANSFER VALVES

SERVICE APPLICATION:	☒ LUBE OIL, ☐ SEAL OIL & ☐ CONTROL OIL	☒ SEPARATE CONTROL OIL	☐ SEPARATE SEAL OIL	☐ BOOSTER PUMP DISCHARGE OIL	☐ SEPARATE COUPLING OIL
☒ COMMON FOR COOL. AND FILT.	☒ NO ☐ YES	☒ NO ☐ YES	☐ NO ☐ YES	☐ NO ☐ YES	☐ NO ☐ YES
☒ TIGHT SHUTOFF REQUIRED	☒	☒	☐	☐	☐
☐ TYPE					
☐ MANUFACTURER					
☐ MODEL					
☐ WITH LIFTING JACK	☐	☐	☐	☐	☐
☐ RATING, kPa g					
☐ MATERIALS: BODY					
PLUG / BALL					
TRIM					

PUMPS AND DRIVERS	☒ LUBE		☒ COMBINED		☐ SEP. SEAL OIL	☐ BOOST. SEAL
☒ SERVICE APPLICATION	**MINERAL OIL SYSTEM**		**SYNTHETIC OIL SYSTEM**			
☒ FIGURE No. / OPTIONS						
☒ EMERGENCY PUMP SYSTEM[a]	☒		☒		☐	☐
PUMP SERVICE	MAIN / STDBY	EMERG	MAIN / STDBY	EMERG.	MAIN / STDBY	EMERGENCY
☐ PUMP ITEM No.						
☐ PUMP TYPE						
☐ PUMP DATA SHEET						
☐ HORIZONTAL OR VERTICAL						
☐ DRIVER ITEM No.						
☐ TURBINE DRIVER FOR	☐ M ☐ S	☐ E	☐ M ☐ S	☐ E	☐ M ☐ S	☐ E
☐ TURBINE DATA SHEET						
☐ ELECTRIC MOTOR FOR	☐ M ☐ S	☐ E	☐ M ☐ S	☐ E	☐ M ☐ S	☐ E
☐ ELECTRIC MOTOR DATA SHEET						
☐ OTHER DRIVE FOR	☐ M ☐ S	☐ E	☐ M ☐ S	☐ E	☐ M ☐ S	☐ E
☐ OTHER DRIVE DATA SHEET						
☐ SHAFT DRIVEN FOR	☐ M ☐ S	☐ E	☐ M ☐ S	☐ E	☐ M ☐ S	☐ E
☐ COUPLING TYPE						
☐ SOLENOID TRIP VALVE	☐	☐	☐	☐	☐	☐
☐ BOOSTER PUMPS REQUIRED						
☐ BOOSTER SUCTION PROTEC.						
☒ ROTARY PUMP RELIEF VALVE IF APPLICABLE (PUCHASER / VENDOR)	**PACKAGER**		**PACKAGER**			

PETROBRAS	DATA SHEET	No. I-FD-3A17.01-1231-392-1J5-001	REV. A
	BS/ATP-IMI/OP-PMXL	SHEET: 5 of 12	
	TITLE: OIL SYSTEM FOR TURBOCOMPRESSOR – UC-1231002	BS/PCM/PROJDP	
		INTERNAL	

1	**ACCUMULATORS**				
2	SERVICE APPLICATION	☒ LUBE OIL	☒ CONTROL OIL	☐ SEAL OIL	☐ SEAL OIL BOOST.
3	☐ PURCHASER'S ITEM No.				
4	☒ REQUIRED (YES OR NO) / QUANTITY	**YES /**	**YES**		
5	☐ SERVICE COMBINED WITH				
6	☐ DIRECT CONTACT TYPE	☐	☐	☐	☐
7	☐ BLADDER TYPE	☐	☐	☐	☐
8	☐ INCLUDE OPTION No.				
9	☐ RUNDOWN (MIN.)				
10	☐ OIL TEMPERATURE CONTROL	☐	☐	☐	☐
11	☐ CONSTANT PRESSURE REGULATOR	☐	☐	☐	☐
12	☐ MANUFACTURER				
13	☐ MODEL				
14	☐ NOMINAL / USABLE CAPACITY, l				
15	☐ MATERIAL: SHELL				
16	BLADDER				
17	☐ DESIGN / TEST, kPa g				
18	☒ CODE CONSTRUCTION / STAMP	☒ / ☒	☒ / ☒	☐ / ☐	☐ / ☐
19	☒ INCLUDE CHARGE PRESS GAUGE PLUS				
20	MANUAL CHARGE VALVE OR	☒	☒	☐	☐
21	GAS SUPPLY REGULATOR	☐	☐	☐	☐
22	**OVERHEAD TANKS**				
23	SERVICE APPLICATION	☒ RUNDOWN LUBE	☐ LOW PRESS. SEAL	☐ MEDIUM PRESS. SEAL	☐ HIGH PRESS. SEAL
25	☒ REQUIRED	☒	☐	☐	☐
26	☐ SERVICE COMBINED WITH				
27	☐ DIRECT CONTACT TANK	☐	☐	☐	☐
28	☐ BLADDER TYPE	☐	☐	☐	☐
29	☐ INCLUDE OPTIONS No.				
30	☐ CAPACITY, min				
31	☐ CAPACITY, l				
32	☐ BLOWDOWN CONNECTION				
33	☐ RUNDOWN TANK FIGURE				
34	☐ OVERHEAD TANK FIGURE				
35	☐ CORROSION ALLOWANCE				
36	☐ MATERIAL				
37	☐ TOTAL CAPACITY, l				
38	☐ DESIGN / TEST, kPa g				
39	☐ CODE CONSTRUCTIONS / STAMP	☐ / ☐	☐ / ☐	☐ / ☐	☐ / ☐
40	☐ ACCUMULATOR UNIT				
43	☐ PURCHASER ITEM No.				
44	☐ CORROSION ALLOW.				
45	☐ MANUFACTURER AND QUANTITY				
46	☐ MODEL				
47	☐ MATERIAL: SHELL				
48	BLADDER				
49	☐ NOMINAL / USABLE CAPACITY, m^3				
50	☐ DESIGN / TEST, kPa g				
51	☐ CODE CONSTRUCTION / STAMP	☐ / ☐	☐ / ☐	☐ / ☐	☐ / ☐
52	**REMARKS:**				
53	[a] If necessary				
54					
55					
56					
57					
58					
59					
60					
61					

PETROBRAS	DATA SHEET	No. I-FD-3A17.01-1231-392-1J5-001	REV. A
	BS/ATP-IMI/OP-PMXL	SHEET: 6 of 12	
	TITLE: OIL SYSTEM FOR TURBOCOMPRESSOR – UC-1231002	BS/PCM/PROJDP	
		INTERNAL	

TRAPS FOR INNER SEAL OIL (OIL SEALS)

	☐ RUNDOWN LUBE	☐ LOW PRESS. SEAL	☐ MEDIUM PRESS. SEAL	☐ HIGH PRESS. SEAL
☐ SERVICE APPLICATION				
☐ PURCHASER'S ITEM No.				
☐ SEAL-GAS VENT PIPING ARRANGEMENT				
☐ FLOAT CONTROLLED	☐	☐	☐	☐
☐ TRANSMITTER CONTROLLED	☐	☐	☐	☐
☐ POTS ONLY, FOR MANUAL DRAIN	☐	☐	☐	☐
☐ WITH: VALVING	☐	☐	☐	☐
☐ FLUSH LEVEL GLASS	☐	☐	☐	☐
☐ HIGH LEVEL TRANSMITTER	☐	☐	☐	☐
☐ INCLUDE OPTION No.				
RETENTION: HOURS/LITER				

FLOAT TRAP

	☐ RUNDOWN LUBE	☐ LOW PRESS. SEAL	☐ MEDIUM PRESS. SEAL	☐ HIGH PRESS. SEAL
☐ MANUFACTURER / MODEL				
☐ PRESSURE RATING, kPa g				
☐ MATERIALS: BODY				
FLOAT / TRIM				
☐ DRAIN LANE PIPED TO:				

DRAIN POT

	☐ RUNDOWN LUBE	☐ LOW PRESS. SEAL	☐ MEDIUM PRESS. SEAL	☐ HIGH PRESS. SEAL
☐ CORROSION ALLOWANCE				
☐ MATERIAL				
☐ DESIGN / TEST, kPa g				
☐ CODE CONSTRUCTION / STAMP	☐ / ☐	☐ / ☐	☐ / ☐	☐ / ☐

MIST ELIMINATOR

	☐ RUNDOWN LUBE	☐ LOW PRESS. SEAL	☐ MEDIUM PRESS. SEAL	☐ HIGH PRESS. SEAL
☐ CORROSION ALLOWANCE				
☐ MATERIAL: SHELL				
DEMISTING MESH				
☐ DESIGN / TEST, kPa g				
☐ CODE CONSTRUCTION / STAMP	☐ / ☐	☐ / ☐	☐ / ☐	☐ / ☐

SHOP INSPECTION

- ☒ COMPLIANCE WITH INSPECTOR'S CHECKLIST
- ☐ REQUIRED FOR SYSTEM ASSEMBLIES
- ☒ CLEANLINESS PRIOR TO CLOSURE
- ☒ REQUIRED FOR MAJOR COMPONENTS
- ☒ MATERIAL CERTIFICATIONS TO BE FURNISHED
- ☐ SPECIAL EXAMINATIONS
- ☒ CODE CONSTRUCTION / STAMP
- ☒ CERTIFIED COPIES OF ALL TEST LOGS AND DATA

SHOP TEST

	REQUIRED	WITNESS
☒ CLEANLINESS	☒	☐
☒ FOUR HOUR RUN	☒	☐
☒ CHECK CONTROLS	☒	☐
☒ CHANGEOVER FILTERS / COOLERS	☒	☐
☒ ONE AND TWO PUMP OPERATION	☒	☐
☒ SOUND LEVEL	☒	☐
☒ HYDROTEST ASSEMBLED SYSTEM	☒	☐
☒ USE FOR COMPLETE UNIT SYSTEM TEST	☒	
☒ CERTIFIED COPIES OF ALL TEST LOGS AND DATA	☒	

REMARKS:

PETROBRAS	DATA SHEET	No. I-FD-3A17.01-1231-392-1J5-001	REV. A
	BS/ATP-IMI/OP-PMXL	SHEET: 7 of 12	
	TITLE: OIL SYSTEM FOR TURBOCOMPRESSOR – UC-1231002	BS/PCM/PROJDP	
		INTERNAL	

SCOPE AND ATTACHMENTS

APPLICABLE DOCUMENTS

- ☐ LOCAL INSTRUMENTS AND PANEL ITEMS _____
- ☐ INSTRUMENT SUPPLIERS _____
- ☒ SPECIAL PURPOSE OIL SYSTEMS _____
- ☐ GENERAL PURPOSE OIL SYSTEMS _____
- ☐ DRY GAS SEAL SUPPORT MODULES _____
- ☐ PUMPS _____
- ☐ PUMP DRIVERS (MOTOR) _____
- ☐ PUMP DRIVERS (TURBINE) _____
- ☐ REFERENCED STANDARDS _____
- ☐ _____ _____

INSTALLATION DATA *[NOTE 2]*

- ☒ GENERAL SITE DATA INCLUDED IN SPECIFICATION
- ☒ UTILITY DATA INCLUDED IN SPECIFICATION
- ☐ SPACE AVAILABLE FOR OIL SYSTEM: L _____ W _____ H _____ m
- ☐ PLOT PLAN SHOWING CONSOLE LOCATION IN RELATION TO MAIN EQUIPMENT: →
- ☐ MAXIMUM ALLOWABLE NOISE LEVEL NOT TO EXCEED _____ dB @ 1m OR SEE _____

(SKETCH THE EQUIPMENT PLOT PLAN WITH RELATION TO THE CONSOLE LOCATION HERE)

- ☐ WINTERIZE ☒ TROPICALIZE ☐ AREA CLASSIFICATION: ZONE _____ GROUP _____ CLASS _____

EQUIPMENT OIL REQUIRED

LUBE OIL: SUPPLY PRESSURE, kPa _____	NORMAL m^3/h	AFTER TRIP m^3/h	SEAL OIL:	NORMAL FLOW, m^3/h / PRESS., kPa	AFTER TRIP FLOW, m^3/h / PRESS, kPa
☐ DRIVEN EQUIPMENT			☐ SEAL OIL AT:	/	/
☐ DRIVEN EQUIPMENT			☐ SEAL OIL AT:	/	/
☐ DRIVER EQUIPMENT			☐ SEAL OIL AT:	/	/
☐ PRIME MOVER					
☐ GEARS					
☐ COUPLINGS					
☐ TOTAL:			☐ TOTAL:	/	/
☐ CONTROL OIL (NORMAL)			☐ OIL TYPE AND VISCOSITY		
☐ CONTROL OIL (TRANSIENT)			☐ REQUIRED HEAT LOAD	kW	

SITE DATA *[NOTE 3]*

AMBIENT CONDITIONS

- ☐ MIN/MAX TEMP., ºC _____ / _____
- ☐ RELATIVE HUMIDITY, %: _____
- ☒ MARINE ENVIRONMENT _____

UTILITY DATA *[NOTE 4]*

ELECTRICAL

- VOLTS _____
- HERTZ _____
- PHASE _____

COOLING WATER: WATER SOURCE _____

- INLET: TEMP. _____ ºC, PRESS. _____ kPa g
- RETURN: TEMP. _____ ºC, PRESS. _____ kPa g

STEAM		DRIVERS PRESS.	kPa	DRIVERS TEMP.	ºC	HEATING PRESS.	kPa	HEATING TEMP.	ºC
INLET	MINIMUM								
	NORMAL								
	MAXIMUM								
EXHAUST	MINIMUM								
	NORMAL								
	MAXIMUM								

LOCATION

☐ INDOOR ☒ OUTDOOR ☐ HEATED ☒ UNHEATED ☐ UNDER ROOF

PAINTING

- ☒ COMPONENT SUPPLIER STD
- ☐ UNIFIED PER SYSTEM SUPPLIER STD
- ☐ PURCHASER STANDARD

WEIGHTS, kg

- CONSOLE _____
- PANEL _____

DIMENSIONS, m: L x W x H

- CONSOLE _____
- PANEL _____

PREPARATION FOR SHIPMENT

- ☐ INSTALL NEW FILTER ELEMENTS AND TAG
- ☐ INCLUDE _____ SETS OF EXTRA FILTER ELEMENTS
- ☐ BOX EXTRA SETS WITH THE _____ SYSTEM
- ☐ OSHA WARNING TAG OR EA ASSEB
- ☐ OTHER SPARES
- ☐ _____

MISCELLANEOUS DOCUMENTATION

- ☒ SPARE PARTS QUOTATION WITH PROPOSAL
- ☐ SPARE PARTS QUOTATION ALTER CONTRACT
- ☐ ABOVE BASED ON NORMAL SUPPLY FOR _____ MONTHS
- ☒ COMPLETE INSPECTOR'S CHECKLIST
- ☒ PROGRESS REPORTS
- ☒ COMPONENT SELECTION REVIEW

SYSTEM AND COMPONENTS

	VENDOR STD.	PURCH. SPEC.
☐ DOMESTIC	☐	☐
☒ EXPORT	☒	☐
☒ EXTENDED STORAGE 12 MONTHS	☒	☐

SPARE PARTS

	VENDOR STD.	PURCH. SPEC.
_____	☐	☐
_____	☐	☐

PETROBRAS	DATA SHEET	No. I-FD-3A17.01-1231-392-1J5-001	REV. A
	BS/ATP-IMI/OP-PMXL	SHEET: 8 of 12	
	TITLE: OIL SYSTEM FOR TURBOCOMPRESSOR – UC-1231002	BS/PCM/PROJDP	
		INTERNAL	

INSTRUMENT SUPPLIERS	MANUFACTURER	DESCRIPTION
PRESSURE GAUGES		
TEMPERATURE GAUGES		
LEVEL GAUGES		
DIFFERENTIAL PRESSURE GAUGES		
PRESSURE TRANSMITTERS		
DIFFERENTIAL PRESS. TRANSMITTERS		
TEMPERATURE TRANSMITTERS		
LEVEL TRANSMITTERS		
CONTROL VALVES		
PRESSURE RELIEF VALVE		
THERMAL RELIEF VALVE		
SIGHT FLOW INDICATORS		
PRESSURE TRANSMITTER		
VIBRATION EQUIPMENT		
TACHOMETER		
SOLENOID VALVES		
ANNUNCIATOR		
THERMOCOUPLES		
RTDs		
THERMOWELLS		

SERVICE	CONSOLE GAUGES BOARD	LOCAL EQUIPMENT PANEL	REMOTE EQUIPMENT PANEL
☐ PANEL IDENTIFICATION			
☒ SUPPLIED BY	**PACKAGER**		**PACKAGER**
☒ TYPE: FREE STANDING			**YES**
MOUNTED ON	**YES**		
☐ OPEN OR FULLY ENCLOSED			
☐ WEATHER TIGHT			
☐ PURGED OR PRESSURIZED			
☐ PURGE OR PRESSURE GAS			
☐ SHUTOFF VALVES FOR SHUTDOWN			
☐ SENSING DEVICES			
☐ ANNUNCIATOR SYSTEM			
☐ REAR ACCESS DOORS			
☐ WALK-IN FACILITY			
☐ SUN AND WEATHER ROOF EXTENSION			
☐ LIGHT PANEL FRONT / INTERIOR			
☐ LIMITS: MAX HEIGHT ABOVE FLOOR			
LOWEST ITEM ABOVE FLOOR			
☐ SPARE TERMINALS REQUIRED / QTY			
☐ MINIMUM WIRE SIZE			
☐ MATERIAL: FRONT PANEL			
OTHER PANELS AND DOORS			
CHASSIS			
☐ VIBRATION ISOLATOR			
☐ ELECTRICAL AREA CLASSIFICATION			
☐ PANEL POWER SUPPLY			
☐ EXTRA CUTOUTS REQUIRED			

REMARKS:

PETROBRAS	DATA SHEET	No. I-FD-3A17.01-1231-392-1J5-001	REV. A
	BS/ATP-IMI/OP-PMXL	SHEET: 9 of 12	
	TITLE: OIL SYSTEM FOR TURBOCOMPRESSOR – UC-1231002	BS/PCM/PROJDP	
		INTERNAL	

PANEL MOUNTED ITEM DETAILS

USE THE FOLLOWING CODE LETTERS TO SHOW DETAILS

F – FLUSH MOUNT ON FRONT
S – SURFACE MOUNT ON FRONT
R – REAR OF PANEL MOUNT
L – LOCALLY MOUNTED
H – PURCHASER REMOTE MOUNT (CONTROL ROOM)
P – PURCHASER SUPPLY AND MOUNT
V – VENDOR SUPPLY AND MOUNT
B – LOCAL EQUIPMENT PANEL
CP – CUTOUT TO PURCHASER ITEM
M – MOUNT BY VENDOR OF PURCHASER SUPPLIED ITEM
C – CONTROL PANEL

EQUIPMENT INSTRUMENTATION

PANEL IDENTIFICATION	L	B	C
PRESSURE GAUGES			
PUMP SUCTION (EACH)	☐	☐	☐
MAIN OIL PUMP DISCHARGE	☒	☐	☒
STAND-BY OIL PUMP DISCHARGE	☒	☐	☒
EMERGENCY OIL PUMP DISCHARGE	☐	☐	☐
LUBE OIL SUPPLY INLET (EACH LEVEL)	☐	☐	☒
SEAL OIL INLET (EACH LEVEL)	☐	☐	☐
CONTROL OIL INLET (EACH LEVEL)	☐	☐	☒
OIL COOLER INLET (OIL SIDE)	☐	☐	☐
OIL COOLER OUTLET (OIL SIDE)	☐	☐	☐
OIL COOLER INLET (COOLANT SIDE)	☐	☐	☐
OIL COOLER OUTLET (COOLANT SIDE)	☐	☐	☐
ACCUMULATOR PRE CHARGE GAS	☒	☐	☐
DIFFERENTIAL PRESSURE GAUGES			
OIL FILTERS	☒	☐	☒
OIL PURIFIER	☐	☐	☐
OIL SEAL	☐	☐	☐
TEMPERATURE GAUGES			
LUBE OIL SUPPLY INLET (EACH LEVEL)	☐	☐	☐
SEAL OIL INLET (EACH LEVEL)	☐	☐	☐
CONTROL OIL INLET (EACH LEVEL)	☐	☐	☐
OIL COOLER INLET (OIL SIDE)	☒	☐	☐
OIL COOLER OUTLET (OIL SIDE)	☒	☐	☒
OIL COOLER INLET (COOLANT SIDE)	☐	☐	☐
OIL COOLER OUTLET (COOLANT SIDE)	☐	☐	☐
OIL RESERVOIR	☒	☐	☒
JOURNAL BEARING OUTLET[a]	☐	☐	☐
THRUST BEARING OUTLET[a]	☐	☐	☐
DRIVER CASE DRAIN	☐	☐	☐
DRIVEN CASE DRAIN	☐	☐	☐
TRANSMISSION DRAIN	☐	☐	☐

PANEL IDENTIFICATION	L	B	C
LEVEL GAUGES			
CONTAMINATED SEAL OIL DRAIN TRAPS	☐	☐	☐
LUBE OIL RESERVOIR	☒	☐	☒
OVERHEAD TANK	☒	☐	☒
ACCUMULATOR	☐	☐	☐
SIGHT FLOW INDICATORS			
JOURNAL BEARING DRAINS (EA. BRG)	☐		
THRUST BEARING DRAINS (EA. BRG.)	☐		
SEAL DRAINS (EA. SEAL)	☐		
LUBE OIL OVERHEAD TANK OUTLET	☐		
SEAL OIL OVERHEAD TANK OUTLET	☐		
LUBE OIL RESERVOIR OUTLET	☐		
CONTROL OIL RESERVOIR OUTLET	☐		
ACCUMULATOR OUTLET	☐		
DRIVER CASE DRAIN	☐		
DRIVEN CASE DRAIN	☐		
TRANSMISSION DRAIN	☐		
COUPLING DRAIN	☐		
ALL OIL RETURN LINES TO RESERVOIR	☒		
LIQUID INJECTION MANIFOLD	☐		
RELIEF VALVES DOWNSTREAM	☐		
OTHER			
REVERSE PURGE FLOW INDICATOR	☐	☐	☐
ANNUNCIATOR SYSTEM	☐	☐	☐
STAND-BY PUMP READY TO RUN	☐	☐	☐
EMERGENCY PUMP READY TO RUN	☐	☐	☐
MAGNETIC PARTICLE DETECTOR	☐	☐	☐

REMARKS

[a] Driven, gearbox and transmission

PETROBRAS	DATA SHEET	No. I-FD-3A17.01-1231-392-1J5-001	REV. A
	BS/ATP-IMI/OP-PMXL	SHEET: 10 of 12	
	TITLE: OIL SYSTEM FOR TURBOCOMPRESSOR – UC-1231002	BS/PCM/PROJDP	
		INTERNAL	

ALARM & SHUTDOWN

FUNCTION	ALARM	TRIP	FUNCTION	ALARM	TRIP
LOW MAIN PUMP DISCHARGE PRESSURE	☒	☐	HIGH OIL RESERVOIR LEVEL	☒	☐
LOW STAND-BY PUMP DISCHARGE PRESSURE	☒	☐	LOW OIL RESERVOIR LEVEL	☒	☒
LOW EMERG. PUMP DISCHARGE PRESSURE	☐	☐	HIGH OIL OVERHEAD TANK LEVEL	☒	☐
LOW LUBE OIL SUPPLY PRESS. (EA. LEVEL)	☒	☒	LOW OIL OVERHEAD TANK LEVEL	☒	☐
LOW CONTROL OIL SUPPLY PRESS. (EA. LEVEL)	☒	☒	HIGH ACCUMULATOR LEVEL	☐	☐
LOW SEAL OIL SUPPLY PRESS. (EA. LEVEL)	☐	☐	LOW ACCUMULATOR LEVEL	☐	☐
HIGH OIL FILTER ΔP	☒	☐	LOW PRESSURE TO START STD-BY PUMP	☒	☐
HIGH OIL SEAL ΔP	☐	☐	STAND-BY OIL PUMP RUNNING	☒	☐
LOW OIL SEAL ΔP	☐	☐	EMERGENCY OIL PUMP RUNNING	☐	☐
			MAGNETIC PARTICLE DETECTION	☐	☐
HIGH OIL COOLER OUTLET TEMP.	☒	☒			
LOW OIL COOLER OUTLET TEMP.	☐	☐			
HIGH BEARING OUTLET TEMPERATURE (EACH)	☒	☒			
LOW OIL RESERVOIR TEMPERATURE	☒	☐			
HIGH OIL RESERVOIR TEMPERATURE	☒	☐			

MISCELLANEOUS

☐ CONTACTS TO	☒ OPEN	☐ CLOSE TO ALARM AND BE NORMALLY	☒ ENERGIZED	☐ DE-ENERGIZED
☐ CONTACTS TO	☒ OPEN	☐ CLOSE TO TRIP AND BE NORMALLY	☒ ENERGIZED	☐ DE-ENERGIZED
☐ CONTACTS TO	☐ OPEN	☒ CLOSE TO PERMIT START AND BE NORMALLY	☒ ENERGIZED	☐ DE-ENERGIZED
☐ CONTACTS TO	☐ OPEN	☐ CLOSE TO START MAIN PUMP	☐ ENERGIZED	☐ DE-ENERGIZED
☐ CONTACTS TO	☐ OPEN	☐ CLOSE TO START STAND-BY PUMP	☐ ENERGIZED	☐ DE-ENERGIZED
☐ CONTACTS TO	☐ OPEN	☐ CLOSE TO START EMERGENCY PUMP	☐ ENERGIZED	☐ DE-ENERGIZED

NOTE: NORMAL CONDITION IS WITH EQUIPMENT OPERATING

☐ SWITCH ENCLOSURES: ☐ EXPLOSION PROOF ☐ WEATHERPROOF ☐ OTHER

☐ CALIBRATIONS: ☐ STANDARD ENGLISH (USA) SYSTEM ☐ SI ☐ METRIC ☐ _____

☐ AIR SIGNALS: ☐ 103.42 TO 20.68 kPa g ☐ _____

☐ CONNECTIONS: ☐ TERMINALS AT EDGE OF ☐ BASE ☐ PANEL

☐ BY PURCHASER DIRECT TO INSTRUMENTS

☐ SUBSTITUTE PNEUMATIC-OPERATED (FOR DIRECT-ACTING) CONTROL VALVES ☐ ALL VALVES

☐ POSITIONERS REQUIRED ON PNEUMATIC-OPERATED VALVES ☐ ALL

☐ VALVE FAILURE POSITION ☐ FAIL OPEN FOR ☐ FAIL CLOSED FOR ☐ FAIL LOCKED FOR

☐ INCLUDE THERMAL RELIEF VALVES ON: _____

☐ ADDITIONAL OIL SYSTEM INSTRUMENTS (NOT INCLUDED IN FIGURES AND OPTIONS)

☐ ALL ITEMS LOCALLY MOUNTED, EXCEPT: ☐ SEE PAGE ____ FOR PANEL-MOUNTED ITEMS

☐ LOCALLY MOUNTED INSTRUMENTS: ELECTRICAL AREA CLASSIFICATION

☐ MANUFACTURERS AND MODELS: ☐ VENDOR'S STANDARD ☐ PER PAGE ____ DETAILS ☐ PURCHASER'S VENDOR LIST

☐ CONTINUOUS OIL THROUGH FLOW

REMARKS:

NOTES

1. General:
   1.1. Oil system for main equipment package shall be in accordance with API std 614, last edition.
   1.2. Cooler System shall be in accordance with API 661.
   1.3. PACKAGER shall provide one (1) oil system for lubricating driver gearbox and driven equipment. The total number of supply shall be according to gearbox total number of supply as stated in material Requisition (RM).
   1.4. PACKAGER shall fill in all blank spaces (fields) in these data sheet. All not applicable spaces shall be filled in with NA (NOT APPLICABLE).
   1.5. Other oil system configuration shall be submitted to PETROBRAS approval, but shall follow the philosophy described on project documents concerning dual auxiliaries, instrumentation, alarms, etc.

2. Installation data
   2.1. For area classification, please see DE-3A17.01-5400-94A-1J5-001 - PLANTA DE CLASSIFICAÇÃO DE ÁREAS. Electrical equipment installed in external safe areas, that shall be kept operating during emergency shutdown ESD-3P and ESD-3T shall be certified for installation in hazardous areas Zone 2 Group IIA temperature T3.
   2.2. For noise requirements, please see I-ET-3A17.01-1231-321-1J5-001 – TURBOCOMPRESSOR.

3. Site data:
   3.1. The equipment supplied shall be suitable for the environment and range of ambient conditions including, atmospheric pressure, relative humidity, rainfall, air temperature (dry bulb, see Obs.1), characteristics monthly values and wind motions defined at the document I-ET-3926.01-1000-941-PPC-001 - METOCEAN DATA.

      Obs.1: For air temperature (dry bulb) of electric equipment, use the most critical conditions, between those defined by Classification Society and specific documentation of equipment.

4. Utility data
   4.1. For utilities, please see I-RL-3A17.01-1200-940-1J5-001 – GENERAL SPECIFICATION FOR AVAILABLE UTILITIES and I-ET-3926.01-5140-700-PPC-004 - GENERAL SPECIFICATION FOR ELECTRICAL SYSTEM.

5. Working Group

REV. 0		
KEY	**DEPARTMENT**	**ROLE**
CL2R	BS/ATP-IMI/MIED	EXECUTION
DHG1	BS/PCM/PROJDP	EXECUTION
FBJW	BS/PCM/PROJDP	EXECUTION
FEU5	BS/PCM/PROJDP	EXECUTION
FZ35	BS/PCM/PROJDP	EXECUTION
RZA7	BS/PCM/PROJDP	EXECUTION
SGPL	SRGE/ESUP/PIES/PPP	EXECUTION
URS8	BS/PCM/PROJDP	EXECUTION
U32A	BS/PCM/PROJDP	CHECK
BEGS	BS/PCM/PROJDP	APPROVAL

REV. A		
KEY	**DEPARTMENT**	**ROLE**
DHG1	BS/PCM/PROJDP	EXECUTION
FBJW	BS/PCM/PROJDP	EXECUTION
FEU5	BS/PCM/PROJDP	EXECUTION
FZ35	BS/PCM/PROJDP	EXECUTION
RZA7	BS/PCM/PROJDP	EXECUTION
SGPL	SRGE/ESUP/PIES/PPP	EXECUTION
U32A	BS/PCM/PROJDP	EXECUTION
URS8	BS/PCM/PROJDP	EXECUTION
CTFQ	BS/ENGP/EEDSE	CHECK
BEGS	BS/PCM/PROJDP	APPROVAL